April 5,1923.

President J.A.Blaisdell,
Claremont,California.

Dear President Blaisdell:

The acquisition of the Jones herbarium is certainly bringing favorable comments from many western botanists; the general feeling seems to be one of great satisfaction that so important a collection shall remain in the west. Here are extracts from some of the letters:

(1.) From Dr.W.T.Swingle,in charge of Crop Physiology and Breeding Investigations for the U.S.Dept. of Agriculture at Indio: "I ... am very much pleased indeed to learn that you have acquired the Marcus E.Jones Herbarium,and that Professor Jones himself is to be with you.
I think this marks definitely the starting of a new era in southwestern botany, and I hope you will have no trouble in getting additional funds to mount up the Baker Herbarium and to make extensive additions to your southwestern collection".

(2) From Dr.W.L.Jepson,professor of Systematic Botany at the University of California:"It is extremely good news to hear that the herbarium of Marcus E.Jones is not going east but west,for it will be extremely useful to us here in California."

(3) From Miss Eastwood,curator of Boatny at the California Academy of Sciences: "I had really no expectations of being able to raise the money to purchase the Jones Herbarium and I am so pleased to know that you have succeeded. I had not even begun to try so dont feel at all disturbed about getting in ahead. It is a great addition to the herbariums on the coast and really when we are in accord,as I expect we always shall be,it makes but little difference."

(4) From E.B.Babcock,head of the Division of Genetics of the College of Agriculture of the University of California: "Dr.H.M.Hall has just told me that you have secured the Jones herbarium and I congratulate you,as well as California botanists generally.
I am writing at this time because of my plan to transfer part of our Crepis work to Riverside for the coming year. Mr.Collins and I will both be at Riverside growing extensive collections of Crepis for our taxonomic and genetic studies. I am doing the taxonomic work in connection with this project and am anxious to learn more about our American species. It occurs to me that among the Jones material there are doubtless some Crepis sheets and I am wondering whether it would be possible for you to have these gotten into shape so I can use them next year."

Other letters of congratulation came from men like Mr.E.B.Parish,

now honorary curator of Botany at the University of California, and the authority on Southern California Botany, and from Dr.H.M.Hall of the Carnegie Institution. Dr. Hall is engaged in research in systematic and ecological Botany and is one of the leading western botanists. His work is being carried on partly at Berkeley,partly at Pikes Peak,Colorado, and partly in the Yosemite region. He is very desirous to have some of the same work carried on here that he is doing in the north. I feel sure that with the herbarium facilities now at our command and with proper cooperation in garden work,we can get him to spend considerable time here. His interest and work here would be of great value to us.

His work is along several different lines; in discussing it I am drawing freely on the annual report of the Carnegie Institution of Washington: (1) Experimental taxonomy or experimental systematic botany, in which large groups of many closely related species are worked over by use of herbarium material,by study in the field,and by transplant and garden studies. These transplants may be carried on in two ways: by laying out a transect or long narrow strip running across a great variety of conditions and studying theplants on it and moving them from one place to another on it. Such a transect runs from the plains region up to the high altitudes on Pikes Peak. Another has been begun in California extending from the coast of San Mateo County across the interior valley and the Sierra Nevada to the sagebrush desert of Mono County. By moving plants from one community to another on such a transect and by observing their behavior,considerable theoretical and fundamental data can be obtained which can be used in a more practical way later. Transplants can also be carried out by another method. Some group with many closely related species and forms which change as theypasses from one valley to another and from one range to another can be studied by a combination of herbarium work and of growing in one plat all the forms that can be brought together, to see what they will do when grown under the same conditions. Many of our native plants are going to be of use;before we

can satisfactorily work with such plants, their relationships and taxonomy should be carefully worked out. Dr. Swingle, has growing at Indio a desert specimen of a near relative Citrus from the interior of Australia. It is so utterly unlike Citrus, that it had never been classified near it, but on making careful investigation, he found that it is a close enough relative so that it can be used for budding. He believes that it will be possible to extend the range of Citrus to drier hills and places with little humus in the soil by using this plant as a stock. But he says no one had ever examined it very carefully or thought it a very close relative; the result was that he spent some $20,000. of government money hunting for some such thing. If some systematist had worked the group over carefully, that money could have been saved.

Here is another example. The drug cascara comes from a shrub native to California and the other western states. There are several species of this; no one has made a satisfactory comparative study of these species to find out which one is the most rapid and best grower nor to work out the relative merits of the species. Such work could be done by garden cultures.

(2) Dr. Hall and his colleggues are carrying on work of this general nature; they are taking some of the larger and more difficult western groups, some of which have species of possible economic importance, and are making careful monographic studies.

Another type of work he has been doing is in studying the plants of several different groups, known as "milkweeds". These plants grow particularly in arid regions and have a white substance called "latex" which yields rubber. A rubber extensive survey has been made of the species yielding the best grades, of the distribution, and of abundance. Such a supply might be of great, temporary use during wartime.

(3). Work on the hay-fever producing plants has become of some considerable importance. Dr. Hall has made surveys of the western regions with reference to hay-fever plants and has found by cooperation with physicians and others what plants are largely responsible for hay-fever and what pollens are to be used in the treatment of this malady. For all such work, identification of the native plants by well trained systematic botanists is necessary; before such identification can be made the plant species and groups must be well worked out.

Some of the other work being carried on by the Carnegie botanists is in experimental pollination, opening and closing of flowers, correlation in bud development, careful studies in water relations, in root development and absorption, in climatic cycles and their effect on the vegetation, on grazing, and many more strictly experimental and laboratory studies.

In developing their work, they have produced many new methods of study which are setting quite a new stage in the progress of systematic botany. Dr. Hall has kindly invited me to spend some time with him this summer to get acquainted with these methods, so as to be able to cooperate with him in similar work here. I am looking forward to the opportunity and believe it will be of great use in the future.

Botany has gotten away from the older point of view, the pioneer one, by which surveys are carried out. That is the first step. Next comes the more exact one of experimental work by such means as I have above outlined. To get in with the men who are doing such work and to connect our work up with theirs,- it is in this way that we can use the facilities that we have of herbarium and garden. To develope some such garden work is our next step.

Respectfully yours,

Merrill